

MEDICAL PROCEEDINGS

MEDIESE BYDRAES

A South African Journal for the
Advancement of Medical Science

'n Suid-Afrikaanse Tydskrif vir die
Bevordering van die Geneeskunde

P.O. Box 1010 · Johannesburg Posbus 1010 · Johannesburg

Vol. 4

19 April 1958

No. 8

EDITORIAL · REDAKSIONEEL

RADIO-ISOTOPES IN MEDICINE

Nuclear medicine has made giant strides in recent years. Much of this progress has been in simplifying techniques, equipment and training. The very real benefits of medical radio-isotopes are to-day more accessible to the medical practitioner and his patients than is generally realized. Moreover, the processing of isotopes for medical diagnosis and treatment has reached the stage where this is undertaken by the pharmaceutical industry in the course of its normal activities.

Radio-isotopes have already made it possible to develop an entirely new technique for studying basic body metabolism—for investigating the synthesis, utilization, transport and breakdown of body components. The biochemist is daily learning more about the functions of fatty acids, nucleic acids, antigens, antibodies, vitamins, dyes, alkaloids, glycosides and steroids. The metabolic fate of potent drugs in the human body can also be determined with the aid of radio-active tags.

This is fundamental research; but the isotopes also fit into the more practical, present-day scheme of medicine, especially in the field of medical diagnosis, where many investigators consider that the isotopes will ultimately reach their greatest value.

Radio-active isotopes (which generally contain one extra neutron in the atomic nucleus) are essentially the same chemically as their stable counterparts. They may thus be incorporated into other compounds, when they will carry out the same functions as the stable compounds, have the same affinities, and yet serve as a source of ionizing rays.

RADIO-ISOTOPE IN DIE GENEESKUNDE

Nukleêre geneeskunde het in die afgelope paar jare reuse-stappe vooruit gedoen. Veel van hierdie vordering is aangeteken op die gebied van die vereenvoudiging van tegnieke, toerusting en opleiding. Die belangrike voordele van mediese radio-isotope is vandag veel toegankliker vir die mediese praktisyn en sy pasiënte as wat oor die algemeen besef word.

Die bewerking van isotope vir mediese diagnose en terapie het reeds die stadium bereik waar dit deur die farmaseutiese bedryf as deel van sy normale werksaamhede onderneem kan word.

Radio-isotope het dit nou moontlik gemaak om 'n volkome nuwe stelsel vir die bestudering van basiese liggaamsmetabolisme te ontwikkel—'n tegniek vir die ondersoek van die sintese, die aanwending, vervoer en afbreek van die liggaam se bestanddele. Die bioskeikundige leer elke dag meer omtrent die funksies van vetterige sure, kernsure, antigene, teenstowwe, vitamieë, verfstowwe, alkalioëde, glikosiede en steroïede. Die metabolisme lotgevallen van sterk middels in die liggaam van die mens kan ook met behulp van radio-aktiewe etikette vasgestel word.

Dit is fundamentele navorsingswerk; maar die isotope neem ook 'n plek in in die meer praktiese hedendaagse skema van geneeskunde, veral op die gebied van mediese diagnose, waar, volgens die mening van baie navorsingswerkers, die isotope uiteindelik van die grootste waarde sal wees.

Radio-aktiewe isotope (d.w.s. isotope wat oor die algemeen een ekstra neutron in die

Since the Atomic Energy Commission first made pile-produced isotopes available for peace-time exploitation, several procedures (either untried or, at best, speculative) have emerged as valuable diagnostic aids. These are now approaching routine applicability in an ever-increasing number of hospitals and clinics throughout the world.

As an adjunct to delicate neurosurgery, radioactively-tagged compounds serve as a unique device for locating tumours in the central nervous system. The same is true in identifying metastatic lesions of thyroid carcinoma. Isotopes make it possible to measure body spaces accurately and rapidly, to differentiate between normal and restricted blood flow and to determine the pumping qualities of the heart; and this is by no means the end of the list.

The same properties that make radio-isotopes useful in diagnostic procedures also make them readily adaptable for medical therapy. As a source of therapeutic radiation, they can provide more precise localization of rays at the desired site and a wider choice between beta and gamma rays. Various tumour tissues, hyperplastic areas and even lymph nodes may be selectively bombarded without undue damage to surrounding areas.

Although we in South Africa are at present many thousands of miles from the centres producing these short half-life isotopes, we have not been deprived of them. Their transport in the wing-tips of aircraft has made them readily available in almost full strength, without serious increase in their cost.

Three radio-active isotopes, tagged to a number of different compounds, are responsible for much speculation about the future of atomic medicine—iodine 131 (with a half-life of 8 days), phosphorus 32 (with a half-life of 14.3 days) and gold 198 (with a half-life of 2.7 days).

Radio-iodine is now being widely used in treating thyroid cancer and its metastases. It is also considered valuable in hyperthyroidism, especially when the patient is sensitive to anti-thyroid drugs or the case is complicated by heart disease. Radio-phosphorus has proved beneficial in polycythaemia vera and certain leukaemias. Radio-gold has been reported successful in isolated instances when implanted in the colloidal state into ovarian or prostate tumours. Intravenously, gold has been useful in chronic leukaemia.

This is only a glimpse of the contemporary, but rapidly changing status of radio-active

atoomkern bevat) is essensieel dieselfde, uit 'n chemiese oogpunt, as hul stabiele teenhangers. Hulle kan dus opgeneem word in ander same-stellings, en voer dan dieselfde funksies as die stabiele samestellings uit. Hulle het ook dieselfde affiniteite, en tog tree hulle as 'n bron van ioniserende strale op.

Sedert die Atoomkragkommissie suilgepro-duseerde isotope vir die eerste keer beskikbaar gestel het vir vredestrydse eksplorasie, het etlike prosedures (of onbeproof of hoogstens spekulatief) te voorskyn getree as waardevolle diagnostiese hulpmiddels. Hulle nader op die oomblik die stadium van roetine-aanpas-baarheid in 'n steeds groter aantal hospitale en klinieke dwarsdeur die wêreld.

As toevoegsel tot delikate neurochirurgie is radio-aktief-geëtiketteerde samestellings 'n unieke hulpmiddel om gewasse in die sentrale senuweestelsel op te spoor. Dit geld ook vir die identifikasie van metastatiese letsels van skildklierkarsinome. Isotope maak dit moontlik om liggaamsruimtes akkuraat en vinnig te meet, om te onderskei tussen normale en beperkte vloeiing van die bloed, en om die pompvermoë van die hart vas te stel; en hierdie lys is geensins volledig nie.

Dieselfde eienskappe wat radio-isotope nuttig in diagnostiese prosedures gemaak het, het hulle ook maklik aanpasbaar by mediese terapie gemaak. As bron van terapeutiese bestraling word 'n presiese lokalisasie van strale op die verlangde plek, sowel as 'n wyer keuse tussen beta- en gamma-strale deur hulle moontlik gemaak. Verskeie gewasweefsels, hiperplastiese streke en selfs limfknooppies kan selektief gebombardeer word sonder buitensporige beska-diging van die nabygeleë gebiede.

Hoewel ons hier in Suid-Afrika duisende myle verwyder is van die sentrums waar hierdie isotope met 'n kort halflewe geproduseer word, kan ons nogtans gebruik van hulle maak. Die feit dat hulle in die vlerkpunte van vliegtuie vervoer kan word, het hulle beskikbaar gestel teen byna volle sterkte en sonder dat hul prys buitensporig gestyg het.

Drie radio-aktiewe isotope, verbonde aan 'n aantal uiteenlopende samestellings, is verantwoordelik vir heelwat gissings oor die toekoms van atomiese geneeskunde. Hulle is jodium 131 (met 'n halflewe van 8 dae), fosfor 32 (met 'n halflewe van 14.3 dae), en goud 198 (met 'n halflewe van 2.7 dae).

Radio-jodium word tans op 'n groot skaal gebruik vir die behandeling van skildklierkanker en sy metastases. Daar word ook gemeen dat dit besonder waardevol is vir die behandeling van hiperthyroidisme, veral as die pasiënt gevoelig is vir anti-skildkliermiddels, of as die geval deur hartkwaal gekompliseer word. Radio-fosfor het getoon dat dit heilsaam is in gevalle van polycythaemia vera en sekere leukemies. Daar word berig dat radio-goud suksesvol was by die behandeling van geïsoleerde gevalle toe dit in 'n kollodiale toestand in eierstok- of prostaat-gewasse geplant is. Binne-ars is-goud met welslae gebruik in gevalle van chroniese leukemie.

medicine. Its growth in usefulness in the past few years has been phenomenal—and it is a field in which the potential has hardly been tapped. All the signs point to increasingly rapid dissemination of knowledge and power for more effective diagnosis and treatment of disease.

Dit is maar net 'n kort oorsig van die heden-daagse maar vinnig veranderende status van radio-aktiewe geneeskunde. Die toenemende nuttigheid daarvan in die afgelope paar jaar was fenomenaal, en dit is 'n gebied waar die moontlikhede nog skaars aangeraak is. Al die tekens dui op 'n vinniger verspreiding van kennis en krag vir die doeltreffender diagnose en behandeling van siektes.

SAN MICHELE

UNDENOMINATIONAL HOME FOR MENTALLY DEFECTIVE CHILDREN

This Home (placed in 10 acres of ground at Elandsfontein, just off the Main Reef Road in the Boksburg District) was established by a group of interested parents in May 1944 and was officially registered as a Welfare Organization. The Home caters for physically and mentally retarded boys between the ages of 5 and 17 years, who cannot be accommodated in any other institution in the Union. Twenty per cent of the present inmates are permanently bedridden, 16% are semi-bedridden and the remainder, although ambulant, require close supervision and attention.

Medical services are provided by doctors acting in an honorary capacity (specialists and general practitioners) and dental services are given by an honorary dentist. There is also a full-time occupational therapist to assist those who can benefit from this kind of treatment.

The Home needs about £1,000 per month to cover its budget for the maintenance of the 50 children who are now accommodated. Parents are able to contribute only about 20% of this sum. There is, of course, also some Government assistance, but the organization is largely dependent on the generosity of the public for the bulk of its income. The Home relies very extensively on subscribers at one guinea a year, donations in kind, legacies, street collections, municipal grants-in-aid and fund raising schemes generally.

Children are admitted from all parts of South Africa as well as Rhodesia. Of the children at present in the Home, 50% are Afrikaans, 20% English, 20% Jewish and 10% are not classified.

It has now been decided to proceed with the opening of a new wing, which will accommodate an additional 50 children—an undertaking which involves almost a doubling of expenditure.

It is hoped that the public will generously support the drive for funds required because of the need for considerable capital expendi-

DIE NIE-SEKTARIESE TEHUIS VIR SWAKSINNIGE KINDERS

Hierdie Tehuis, op ongeveer 5 morg grond by Elandsfontein, digby die Hoofrifweg in die distrik Boksburg, is in Mei 1944 deur 'n groep belanghebbende ouers gestig en amptelik as 'n welsynsorganisasie geregistreer. Die Tehuis voorsien in die behoeftes van liggaamlik en geestelik vertraagde seuns tussen die ouderdomme van 5 en 17 jaar wat nie akkommodasie in enige ander inrigting in die Unie kan kry nie. Twintig persent van die huidige inwoners is permanent bedleënd, 16% is half-bedleënd en die res wat wel kan rondspas, verg die allersorgvuldigste toesig en aandag.

Mediese dienste word verskaf deur dokters (spesialiste en algemene praktisyns) wat in 'n ere-hoedanigheid optree, en tandheelkundige dienste word deur 'n ere-tandarts beskikbaar gestel. Daar is ook 'n voltydse beroepsterapeut om hulp te verleen aan kinders wat by hierdie soort behandeling kan baat.

Die Tehuis het ongeveer £1,000 per maand nodig om die onkoste verbonde aan die onderhoud van die 50 kinders wat op die oomblik aldaar behandel word, te dek. Ouers kan net ongeveer 20% van hierdie bedrag bydra. Die Regering verleen natuurlik ook 'n sekere mate van hulp, maar vir die oorgrootste deel van sy inkomste is die Tehuis afhanklik van die vrygewigheid van die publiek. Die Tehuis maak in 'n baie groot mate staat op die inkomste verkry van inskrywers teen een ghienie per jaar, donasies in natura, nalatenskappe, straatkollekte, munisipale toelaes en geldinsamelingskemas in die algemeen.

Daar is nou besluit om voort te gaan met die opening van 'n nuwe vleuel wat akkommodasie aan 'n addisionele 50 kinders sal verskaf—'n onderneming wat die uitgawes byna sal verdubbel. Kinders uit alle dele van die Unie sowel as Rhodesië word toegelaat. Van die kinders wat op die oomblik in die Tehuis is, is 50% Afrikaners, 20% Engelssprekend, en 20% Jode. Die oorblywende 10% is nie geklassifiseer nie.

ture essential for extensions and improvements.

The Germiston San Michele Fund Raising Committee recently equipped the Home with a modern laundry, costing about £1,000 and the Union of Jewish Women (East Rand) have undertaken to supply all the equipment and furniture to bring the new wing into commission.

Those interested in this worthy undertaking are invited to communicate with the Organizing Secretary, San Michele Home, 7 Steytlers Building, Loveday Street, Johannesburg.

Daar word gehoop dat die publiek ruimskootse steun sal verleen aan die veldtog om die insameling van geld, want aansienlike kapitaaluitgawes sal aangegaan moet word om die nodige uitbreidings en verbeterings aan te bring.

Die San Michele-geldinsamelingskomitee van Germiston het die Tehuis onlangs voorsien van 'n moderne wassery wat ongeveer £1,000 gekos het, en die Oos-Randse Bond van Joodse Vroue het onderneem om al die nodige toerusting en meubels vir die nuwe vleuel te verskaf.

Diegene wat belang in hierdie verdienstelike onderneming stel, word uitgenooi om in verbinding te tree met die Organiserende Sekretaris, San Michele-tehuis, Steytler-gebou 7, Lovedaystraat, Johannesburg.

STERNAL DEPRESSION

AS A CAUSE OF DIFFICULTIES IN DIAGNOSIS

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Funnel chest (known in Germany as Trichterbrust) was described by Brauhinus as long ago as the 16th century.

With the advent of surgical treatment for certain cardiac lesions it has assumed considerably more importance of late in view of the difficulties in diagnosis it may cause; it may also cloud the assessment of the advisability of surgical intervention. Seventy-six cases of varying degrees of sternal depression have been examined, the youngest being 11 years old and the oldest 68 years old.

THE SYMPTOMS CAUSED BY STERNAL DEPRESSION

Five of the patients in this series suffered from organic cardiac disease as well as from sternal depression and in 3 others the presence of ventricular septal defect was suspected but never proved.

The remaining 68 patients exhibited uncomplicated sternal depression of varying degrees of severity. Of these, 46 patients complained of no symptoms referable to the sternal deformity and it was only recognized during examination for some other complaint or to determine the origin of a murmur.

Absence of symptoms was not confined to patients who displayed only the lesser degrees of sternal depression. Indeed, one of the grossest of funnel chests seen in the series was able to play strenuous games and his only complaint was extreme self-consciousness of his

deformity and this was carried to such an extent that he now demands surgery for aesthetic benefit only (Figs. 1 and 2).

The 22 patients who were not symptom-free complained of the following symptoms.

1. *Pain in the Chest (19 Patients).* The pain was usually stabbing and lancinating and was left mammary in distribution and was not related to effort. It frequently occurred after completion of effort.

Between attacks of stabbing pain an ache was frequently experienced. In 4 cases the pain was associated with paroxysms of tachycardia and in these patients it radiated to the left arm and the neck and was accompanied by a sensation of oppression in the chest.

2. *Difficulty in Breathing (15 Patients).* This difficulty was due to episodes of hyperventilation; giddiness and faintness were usual sequelae.

3. *Palpitations and Extrasystoles (5 patients).*

4. *Tiredness, Lack of Energy and Disinclination for Effort (13 Patients).*

5. *Self-Consciousness due to the Sternal Deformity.* Almost all patients in whom sternal depression was marked admitted that they were reticent about indulging in sports such as swimming, which would display their malformation; but only one was so humiliated by his unsightly deformity that he was anxious to undergo surgery for aesthetic reasons alone.

No patient with uncomplicated sternal depression exhibited any symptoms of cardiac failure or decompensation.

SIGNS DUE TO STERNAL DEPRESSION

1. *Displacement of the Apex Beat to the Left (9 Patients).* This occurred in cases of funnel depression rather than saucer-shaped depression, as pointed out by Evans.¹

2. *Pulsation of veins in the neck,* of the type seen in cases of tricuspid incompetence, was seen in 2 patients. Both of them also exhibited a systolic murmur audible all over the praecordium.

3. *Pulsus paradoxus* was noted in 1 patient (Figs. 1 and 2).

4. *Heart Murmur.* This occurred in 62 patients with uncomplicated sternal depression. The murmur varied from grade I to grade III and its intensity was not affected by posture. The murmur was usually systolic and tended to occur in mid-systole, as pointed out by Evans,¹ i.e. towards the end of the first sound. In 7 patients, however, a late systolic murmur was heard between the first and second sounds and separated from both sounds.

No diastolic murmurs were heard in the uncomplicated cases. No friction rubs or diastolic clicks, as described by Smith,⁴ occurred in this series; but in 4 patients the first sound was widely split and this splitting was accentuated by holding the breath with the chest in inspiration.

5. *Radiological Signs.* Evans² divides these patients into 3 categories

- (a) Funnel depression;
- (b) Cup-shaped depression; and
- (c) Saucer-shaped depression.

He points out that each of these categories affects the X-ray picture differently. In funnel depressions the heart is displaced bodily to the left of the spine (Figs. 1 and 2) and the posterior border of the heart may be displaced backwards to overlap the spine and obliterate the aortic window and the retrocardiac space. The left border of the heart tends to be lifted off the left diaphragm.⁵ Scoliosis is also a common accompaniment.

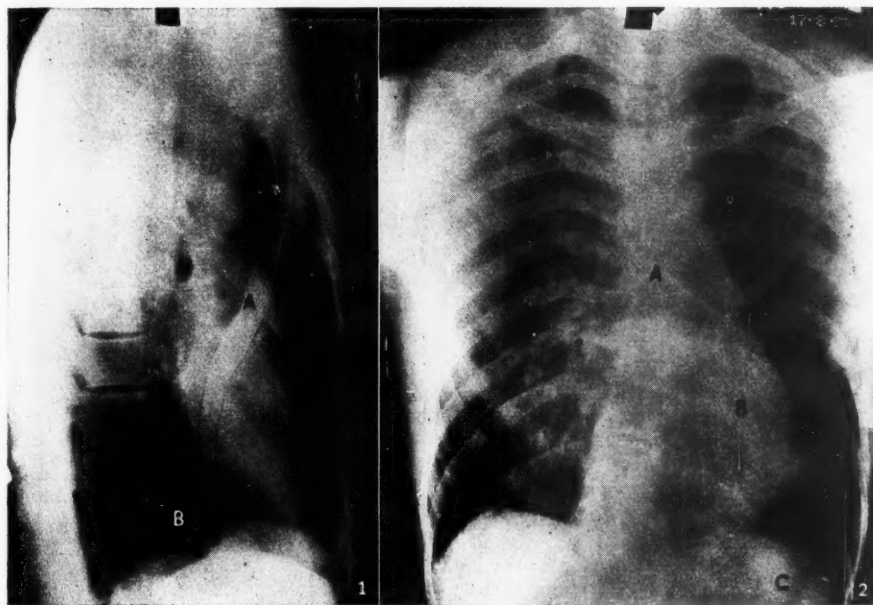


Fig. 1. Right lateral view of chest. The lower end of the sternum is only 1 inch away from the dorsal spine. Note loss of normal kyphosis of the dorsal spine. The heart is to the left of the spine.

A. Sternum

B. 1 inch gap between the sternum and spine

Fig. 2. A. P. view of the same patient. Note that the heart is dislocated into the left side of the chest. The left border of the heart is lifted off the left leaf of the diaphragm and the ribs are plainly seen through the heart shadow. Scoliosis is present.

A. Spine

B. Heart

C. Diaphragm

In cup and saucer depressions the heart is compressed and caught between the sternal depression and the forward bulge of the spine and the density of the heart shadow is diminished so that the ribs are plainly seen through it. Owing to the squashing of the heart the right and left borders appear enlarged and the pulmonary arc becomes prominent (Fig. 3).

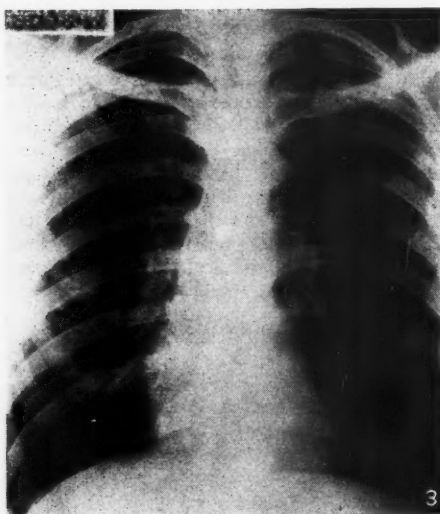


Fig. 3. Note compression of heart so that the right border of the heart is thrown into undue prominence. The pulmonary arc is accentuated and the ribs are plainly seen through the cardiac shadow. In this case the cardio-thoracic ratio is normal. There is a slight degree of scoliosis.

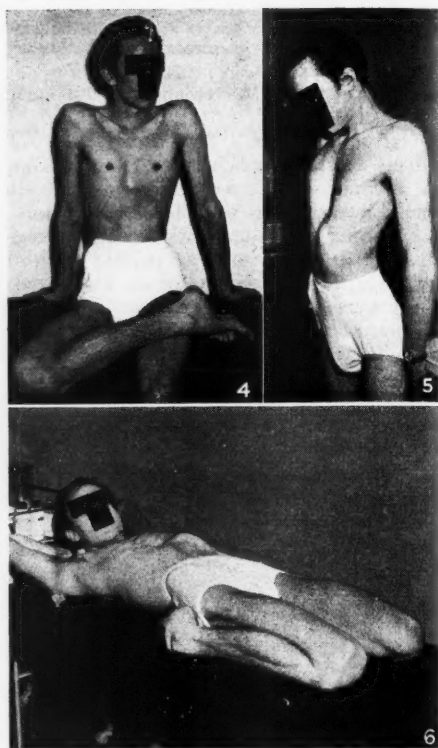
6. *ECG Signs.* There are no specific and pathognomonic signs of this condition; 24 patients showed right axis deviation and 4 exhibited some notching of the QRS complexes. Two showed inversion of the T waves in standard leads 2, 3, and V 1, V 2 and V 3. Appreciable S waves as described by Evans,² were seen in 29 patients. Right bundle branch block was found in 3 patients but in 1 the possibility of a small ventricular septal defect was demonstrated by catheterization and in the other 2 patients it was suspected but not proved.

7. *Co-Existence of other congenital defects* was found in 8 patients (10.5%):

- Arachnodactyly (4 patients);
- High arched palate (3 patients);
- Skeletal deformities (8 patients);
- Scoliosis (7 patients);

Backward displacement of the upper lumbar and cervical vertebrae with subluxation of joints and ability to dislocate them at will (Figs. 4-10) in 1 patient.

No lenticular discoloration was found in this series.

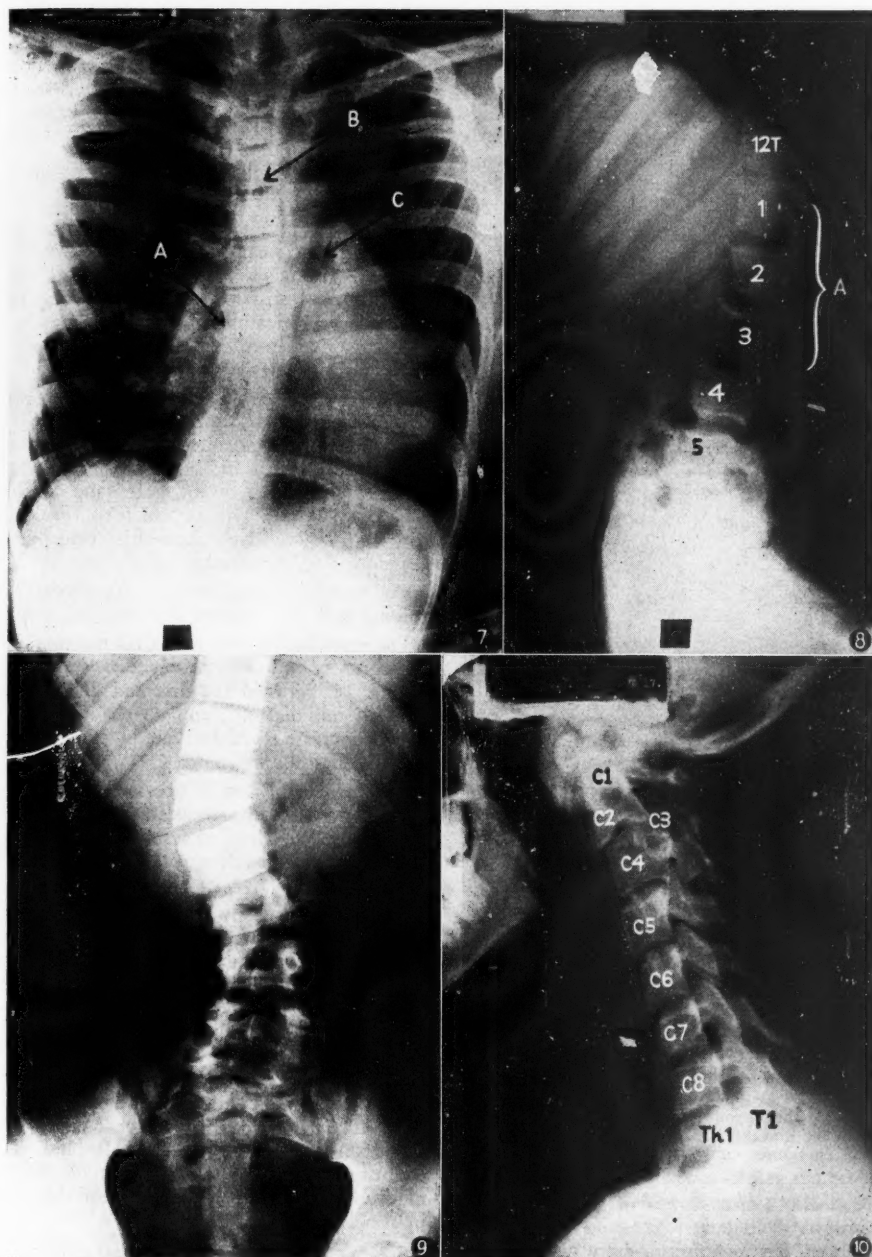


Figs. 4, 5 and 6. This patient showed vertebral displacement and a high arched palate. In Fig. 4 he is voluntarily dislocating his right knee joint. In Fig. 6 he is voluntarily dislocating his right ankle joint. Fig. 5 shows saucer shaped depression of the sternum. Arachnodactyly was also present and a hilar dance suggested that the systolic murmur was due to a patent auricular septal defect. The E.C.G. showed partial right bundle branch block.

Patent ventricular septal defect was demonstrated as a possibility by cardiac catheterization in one case and was suspected in 2 other patients but not proved.

Patent auricular septal defect was suspected in 1 patient who displayed a hilar dance but no ECG changes.

8. *Cases of sternal depression* do not occur in well-nourished persons but affect thin and asthenic types.



Figs. 7 to 10. These X-rays are of the same patient shown in Figs. 4, 5 and 6. In Fig. 7 note the scoliosis and the dislocation of the heart into the left chest and the prominence of the ribs through the heart shadow. The pulmonary arc is prominent. In Fig. 8 note the posterior displacement of the 3rd and 4th lumbar vertebrae and Fig. 9 shows lumbar scoliosis. Fig. 10 demonstrates a backward projection of the body of C3 vertebra and possibly a defect in the lamina of the axis (marked with an arrow).

Fig. 7. A. Prominence of pulmonary artery. B. Spine showing scoliosis to left. C. Heart dislocated to the left and apex lifted off diaphragm.

Fig. 8. A. Backward displacement of 2, 3 and 4 lumbar vertebral bodies.

From what has been said it can well be appreciated that patients with uncomplicated sternal depression may closely simulate the features of organic cardiac disease. The well-marked cases of pectus excavatus are obvious and seldom give rise to difficulties, but it is the lesser degree of depression coupled with a narrowing of the antero-posterior diameter of the lower end of the thoracic cage, that usually cause trouble. This is especially the case where mitral disease is suspected.



Fig. 11. Note that the sagittal section of the chest is not cone shaped with the base of the cone inferiorly but is cylindrical, the sternum lying parallel to the dorsal spine. The dorsal spine does not exhibit the normal ventral curvature but is straight.

Normally a lateral view of the chest shows that the A-P diameter between the thoracic spine and the manubrium sterni is less than between the thoracic spine and the xiphisternum, i.e. the chest is cone-shaped. The case which give rise to trouble most frequently is one in which this widening of the A-P diameter from above down is absent and the chest

is cylindrical with the sternum lying parallel to the spine (Fig. 11). Although the chest is poorly developed, the possibility of sternal depression or diminution of the A-P diameter may be overlooked on clinical examination.

ILLUSTRATIVE CASES

Case 1: A young woman aged 22 was put off all games 3 years before she was seen because a murmur was heard at the apex. Owing to the severe restriction of exercise she became progressively breathless on exertion and at times suffered from lancinating pains in the chest and episodes of hyperventilation which resulted in dizziness and faintness.

She was X-rayed, and the A-P view, while it showed no enlargement of the transverse diameter of the heart, did show prominence of the right border of the heart, and the left auricle was thought to be enlarged (Fig. 12). The right oblique view showed no evidence of left auricular enlargement (Fig. 13).

She was considered suitable for mitral valvotomy and was referred for final assessment.

On examination, the grade III murmur was found to be quite definitely late systolic in timing, i.e. between the first and 2nd sounds, and not mid-diastolic, and no change in posture or increase in cardiac rate by exercise produced a diastolic murmur.

She had no history of previous rheumatism and, in view of the innocent variety of the murmur, the decision to resort to surgery was reversed and the patient was reassured.

She had 7 sisters and 1 brother. Of these, 6 sisters and the boy had similar antero-posterior diminution of the thoracic cage and they all had systolic murmurs (2 of them late systolic murmurs). They had all been diagnosed as valvular disease, were all undergoing various degrees of restriction of exertion and were being treated as cardiac invalids. All are now living a normal life and one of the girls, who had a late systolic murmur and a mitralized type of heart (Fig. 14), is now accepted as a probationer nurse in a London Hospital. The confusion of a late systolic with a mid-diastolic murmur was mainly responsible for the error in connexion with this patient.

Case 2: A further example is that of a married woman aged 30 who stated she had suffered from rheumatic fever at the age of 9, since when she had complained of lassitude and dyspnoea and had been kept away from school

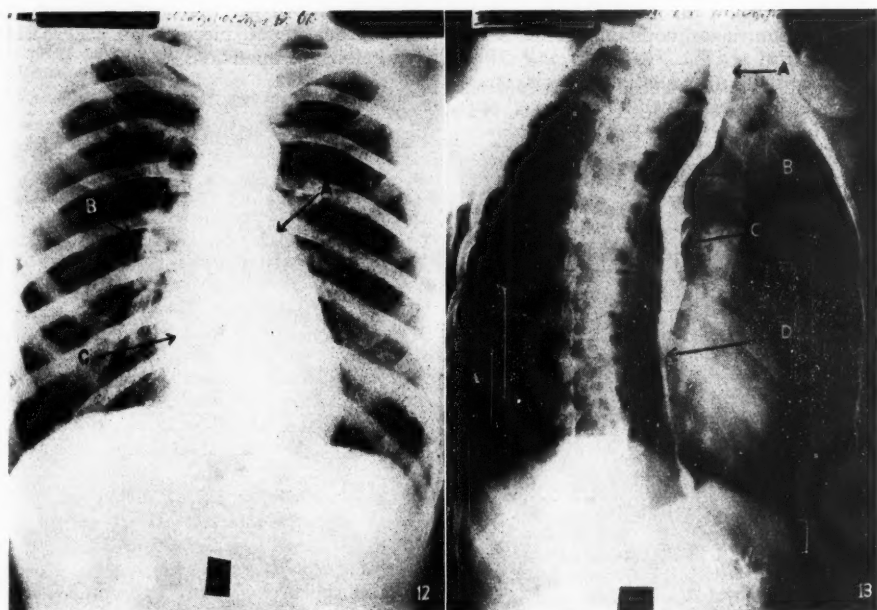


Fig. 12. This patient had a late systolic murmur which had been mistaken for a mid-diastolic murmur. The A.P. view shows no enlargement of the heart but a filling of the area occupied by the left auricular appendage. There is apparent enlargement of the right side of the heart but these appearances are due to compression of the heart and not to any valvular disease.

- A. Filling of pulmonary waist
- B. Prominence of pulmonary arc
- C. Prominence of right border of heart

Fig. 13. Same case as in Fig. 12. There is no enlargement of the left auricle.

- A. Oesophagus
- B. Aortic notch
- C. Pulmonary artery
- D. No enlargement of left auricle

At 23 she got married and suffered from coital dyspareunia. She could walk a mile and climb a flight of stairs without discomfort. She sleeps on 1 pillow but sometimes needs several. No cough, no haemoptysis and no suspicion of pulmonary oedema were present. On auscultation a mid-diastolic murmur was described, but it was noted that there was no accentuation of the first apical sound and no opening snap. Exercise, however, increased the intensity of the mid-diastolic murmur. The surgeon, at the time, found no signs of hypertension, and catheterization confirmed this, the pulmonary arterial pressures (in mm Hg) being 9 S, 3 D and 6 mean before exercise and 12 S, 2D and 7 mean after exercise. These pressures were a low normal and inconsistent

with significant mitral stenosis. Her symptoms could not have been due to such a lesion.

The X-ray appearance of her heart was within normal limits except for a prominent left atrial appendage and some accentuation of the pulmonary arc (Fig. 15). There was some scoliosis and a minor degree of saucer-shaped depression of the sternum.

In view of the persistence of her symptoms, operation was done. The mitral valve admitted the forefinger to the base of the nail and there was no fusion of the antero-lateral commissure. The valve cusps were pliable.

The lateral commissure was adherent and this was freed with Brock's knife, the finger having failed to split it. A large collection of epi-

cardial fat lay below the isthmus of the atrium and this accounted for its prominence on X-ray examination.

In retrospect, this patient did not suffer from a tight mitral stenosis and it is very likely that

the deformity of her thoracic wall contributed more to her clinical picture than was appreciated before the operation.

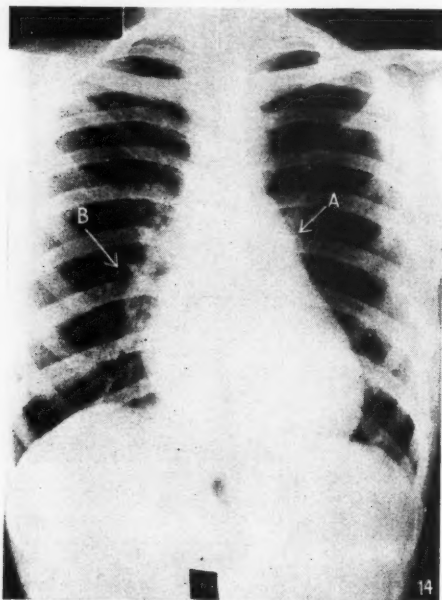


Fig. 14. Note the filling of the pulmonary waist and the apparent prominence of the right border of the heart. This patient had a late systolic murmur and had been diagnosed mitral stenosis but all the changes in this X-ray are due to compression of the heart.

A. Left auricle

B. Pulmonary artery

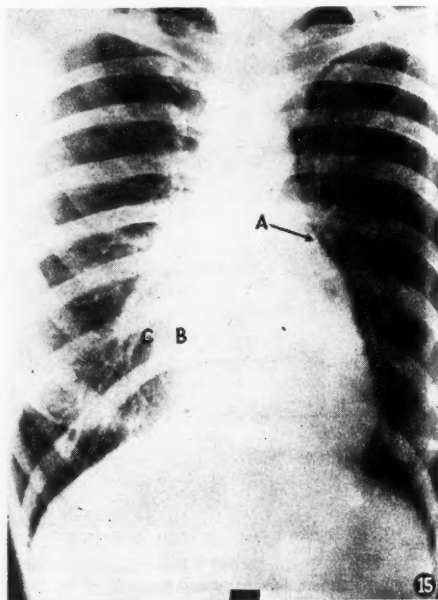


Fig. 15. Note a slight degree of scoliosis and some accentuation of the pulmonary arc. There was an apparent prominence of the left atrial appendage which at operation was shown to be due to a deposit of fat. The ribs are unduly prominent through the heart shadow.

A. Left auricle

B. Prominence of right ventricle

C. Pulmonary artery

(To be continued)

A STUDY OF THE ANTIQUITIES

IN RELATION TO MEDICINE, SURGERY AND GYNAECOLOGY

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A study of the antiquities gives one an idea of medical practice throughout the ages and also throughout the various civilizations.

THE ANCIENT WORLD

The oldest medical text in existence in the world is a Sumerian tablet which is more than 4,000 years old. It was unearthed at Nippur, Iraq, and it is written in cuneiform script.

This tablet is remarkable, because it is completely untainted with superstitious and magical practices. The anonymous physician makes a lot of use of salt and saltpetre, snake skin, milk and turtle shell as well as a lot of herbs, plants and fruits.

One of the prescriptions reads:

'Purify and grind to a powder a water snake skin, add the . . . plant, the root of myrtle, crushed alkali, powdered barley, the skin of the

kushippu-bird, then pour water, boil it and let the water be run off. Bathe the sick organ in it and rub oil over it.

Remedies to be taken internally included:

'Grind to a powder pear-tree wood and the flower of the moon plant, then dissolve in beer and let the man drink.'

'Grind to a powder the seed of the carpenter plant, add the gum of the markazi plant and thyme, then dissolve in beer and let the man drink.'

In Ancient Egypt, one of the earliest known references to surgery is contained in the Edwin Smith Papyrus, which speaks of tumours and abscesses, the latter 'an ailment which I will treat with the fire drill'. The fire drill or stick is a well-known device for kindling fire. It furnished the surgeon with a convenient cautery for application to the required part. This sort of operation must have taken place in Ancient Egypt about 2,500 B.C. (Fig. 1).

The healing Sun God was depicted in Ancient Egypt 5,000 years ago with the symbol of the Eye of Horus. This Eye of Horus persists in every modern physician's prescription, as R. No other country has yielded so much knowledge on the antiquity of diseases as Ancient Egypt. The natural dry, sandy climate, and the funeral customs of mummification combined to preserve the dead body intact. Dissection, X-ray examination and analysis have shown various forms of disease from which these people suffered and died.

Statuary paintings, bas reliefs, hieroglyphs and analysis of papyri, medical and surgical, have told us much of the disease and treatment in this ancient world. The 'brain operation' was well known about 1,200 B.C., and it became famous in the hands of the physician Sinehue, in the reign of the Pharaoh Aknaton. It was used to remove tumours, and cure injuries to the skull and the brain.

Poliomyelitis was known in ancient Egypt and can be seen in the tablet of Memphis circa 13th century B.C., when Egypt was then the supreme world power. This tablet (Fig. 3) shows a man with the typical deformity and paralysis resulting from poliomyelitis. The leg seems to be of little use, since the patient is carrying a walking stick. The picture depicts a sacrificial scene to Astarte.

There is evidence of rickets in some of the skeletons found, but numerous early Egyptian paintings of bow-legged persons with big skulls exist. This may be considered as an indication of the presence of rickets since 2,000 B.C. Dental caries was not rare in pre-dynastic times, but became more frequent later on with the advent of civilization. Vesical calculi have

been found in bodies from royal excavations at Helwan, 3,000 B.C. They have also been known from prehistoric times. Shattock was unable to find bilharzia ova in these calculi,

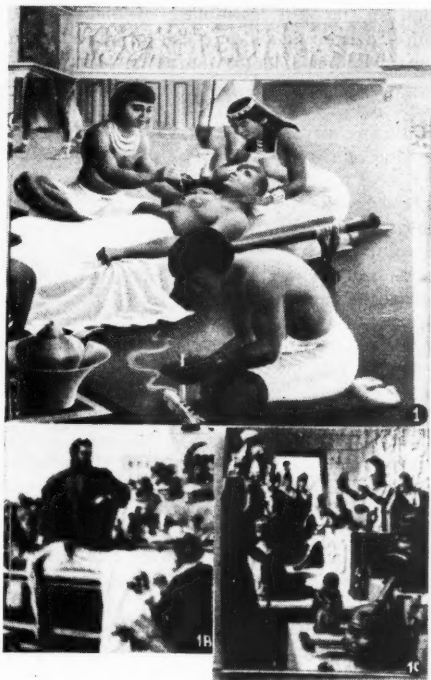


Fig. 1. Surgical operation in Ancient Egypt with the 'fire drill' or cautery (circa 2500 B.C.). [Photographs (Figs. 1-8) Ram Singh].

One of the earliest known references to surgery is contained in the Edwin Smith Papyrus, which speaks of tumours and abscesses, the latter 'an ailment which I will treat with the fire drill'. The fire drill, or stick, was a well-known Egyptian device for kindling fire. It furnished the surgeon with a convenient means of procuring a hot point of application to the tumour or abscess. The artist has depicted such an operation as might have taken place in the 'Old Kingdom' of Egypt, about 2500 B.C.

Fig. 1B. Vesalius teaching anatomy.

Vesalius was Professor of Surgery at the University of Padua (1537-1583), where he conducted public anatomy demonstrations for his students and fellow-physicians. He was among the first to dissect the thyroid gland and in his monumental work *De Humani Corporis*, he describes this gland in the rudimentary, but essentially correct, anatomical terms of his day.

Fig. 1C. Medical training in Ancient Peru.

Among the earliest teaching medical clinics were those conducted by the Incas, in ancient Peru. They employed realistic art for the study of disease. The artist has caught the spirit of these early attempts at medical investigation and reproduced a typical scene with fidelity and artistic vigour.

but Armand Ruffer found them in the kidneys of a mummy of the XXth Dynasty, about 1,100 B.C. Some papyri mention the discharge of blood in urine.

The mummy of Rameses V showed an eruption on the skin resembling variola. He also suffered from an ulcer in the groin and an inguinal hernia. An aged priestess of Amon, of the XXIst Dynasty, had a pelvic abscess and bed sores. The latter were covered by the embalmer with patches of gazelle skin.

One of the royal bodies discovered by Manner at Tanis had suffered severe head burns. These became infected, set up inflammation in the underlying bones of the skull, meningitis developed and death ensued. King Merneptah had arteriosclerosis. The condition was revealed through microscopic examination of the arteries found in his mummy.

Derry describes a case of vesico-vaginal fistula in a young Princess, probably the result of a long labour, because she had an abnormally narrow pelvis. Another mummy showed adhesions caused by chronic appendicitis. In a Nubian mummy there was a case of pleural adhesions. Gall stones were also found in a mummy of the XXIst Dynasty.

The Egyptians believed that all disease other than that caused by injury were caused by the evil spirits of the dead. Their treatment was practical and rational, but the remedies prescribed for illness were mingled, with incantations and medicines. Many of the ingredients were bizarre, but they nearly always contained an effective drug in a crude form. There was also an element of suggestion and faith healing in their treatment.

Horus were the great healers and the gods of magic. Isis was supposed to have cured Ra of snake bite. The physician Imhotep (the name means *He who comes in peace*) was elevated to divinity and installed as the god of medicine.

At Memphis where there was a school of medicine, the deified Imhotep was worshipped as the son of the god Ptah and the goddess Sekhmet. He lived during the third dynasty and was the vizier and architect of King Zoser of the first pyramid fame. Early tradition refers to King Zoser as a skilled physician, but this was not a fact. It seems that the name of the master and of the physician-architect-servant and minister became confused.

Certainly, the profession of physician was held high in esteem and some of the ancient rulers in early dynasties were connected with it. The son of Mena was the author of a work of anatomy. King Zoser was called Sa, the healer, and was referred to in the temple inscriptions as the divine physician.

The medical papyri are numerous, which show the specialization of medicine. The Ebers and the Edwin Smith papyri, written about 1,600 B.C., are examples of this, and they are probably copies of much older texts written about the fourth Dynasty. The writer of these was considered to be a surgeon of great experience, and contemporary with the building of the sphinx and the pyramids.

On a door of a tomb was inscribed the word Pesheshet, which was the name of a woman who was 'Chief of the Physicians'. This shows that women were admitted to the medical pro-

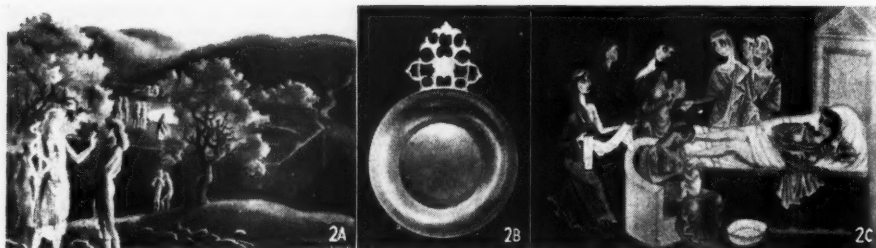


Fig. 2A. Health centres in the Ancient World.

Fig. 2B. A perfectly preserved Charles II bleeding bowl (1682).

Fig. 2C. 'Dame Trot', Physician of Salerno.

With their belief in the supernatural origin of disease, it is not surprising that the ancient Egyptians considered the gods powerful in controlling health and disease. Toth, Isis and

fession in ancient Egypt, and could even attain the post and status of Head Physician.

ANCIENT GREECE

In Ancient Greece, much reference is made to medicine and health. The *Iliad* describes 150 different wounds and lesions, and indicates the method for arresting haemorrhage, for remov-

ing arrows, applying bandages to wounds, the uses of compresses and the therapeutic use of powders of certain roots. Also described is the use of beverages for assuaging pain and for producing stupor. Further mentioned are the epidemic diseases and their relationship to the stars. The gods also have their ailments and

their own physician on Olympus—the divine Paeon.

Healing and health centres existed (Fig. 2), which were called *Asklepiads*, after Asklepios, the God of Healing. These were centres of social medicine, what is to-day called 'positive health'. It is interesting to note the popular

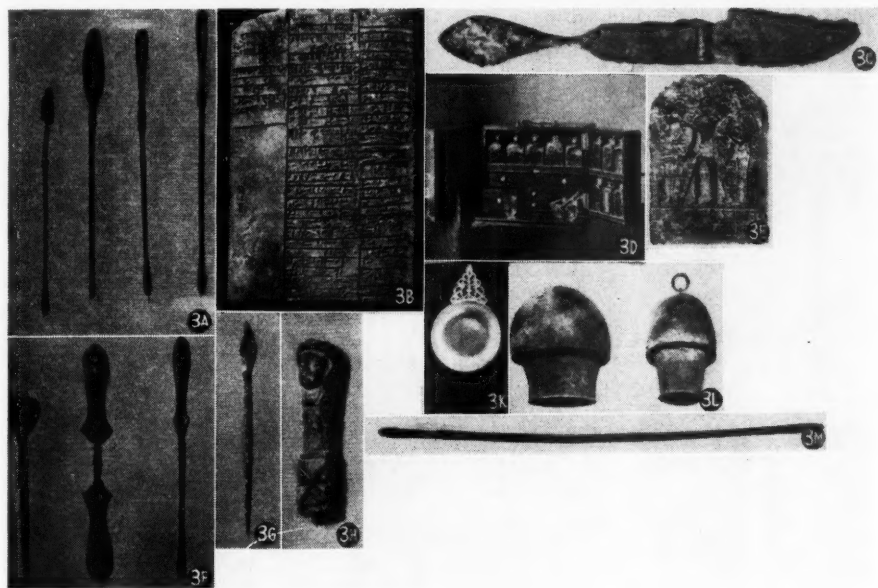


Fig. 3A. Various types of sounds.

Fig. 3B. Sumerian tablet 4000 years old.

This is the oldest medical text in existence. On the reverse side of the tablet is a literal excerpt from the column at the right: White pear tree, the flower of the 'moon' plant, grind into a powder, dissolve in beer, let the man drink.

Fig. 3C. A Roman surgeon's bistoury. This is one of the few examples of complete Roman bistouries which remain today. It has not been possible to remove the incrustations from the blade, because of the risk of completely ruining the object.

Fig. 3D. An 18th century doctor's cabinet in mahogany.

Fig. 3E. A 3000-year-old polio suppliant.

Poliomyelitis appears to have been known in ancient Egypt. The foundation for this assumption is an interesting 'document' from Memphis, dating from the 13th century B.C., when Egypt was the supreme world power. This 'document' (shown in Fig. 3E), is actually a carving in stone and is now in a Copenhagen museum. The front of the stone shows a man with the typical paralysis resulting from poliomyelitis. The right leg is severely atrophic, shorter, and has the typical deformity of the foot. The patient would seem to have had the disease in his youth, and the leg appears to be of little use since the patient is seen carrying a walking stick. Obviously a sacrificial scene is represented. The deformed man, and his wife who accompanies him, bring gifts to the Syrian goddess Astarte in order to secure her assistance in the restoration of the suppliant's health.

Fig. 3F. Various types of spatulae.

Fig. 3G. A lancet (Roman).

Fig. 3H. A pestle (Roman).

Fig. 3K. A Queen Anne cupping bowl 1712.

Fig. 3L. Ancient Roman cupping glasses.

Two examples of cupping glasses in an excellent state of preservation. Whilst numerous representations—generally *bas-reliefs*—showing the use of this implement are in existence, only a few of the objects themselves remain, although they were commonly employed. Cupping glasses were used to bring inflammation and pain to the surface. When a stronger action was required, vesicants, leeches, cauterization and blood-letting were employed, as in more modern times.

Fig. 3M. A Roman catheter

belief that Alexander the Great is recorded to have died from malaria or amoebic dysentery. This cannot be so, because if one reads Plutarch's *Life of Alexander the Great*, it appears that this great king and general suffered, at the palace of Babylon, from a continuous temperature for 10 days (from the 18th to the 28th of the same month) and then expired at the end of this period. Plutarch claims to be quoting

Alexander's own diary. From this description, it seems that he died at the crisis of pneumonia. Malaria, amoebic dysentery and his alcoholic excesses may have been contributory causes, because Plutarch, Athenaeus and Aelius describe his excessive drinking bouts. In one bout, he was supposed to have drunk for one whole day, the succeeding night and into the next day.

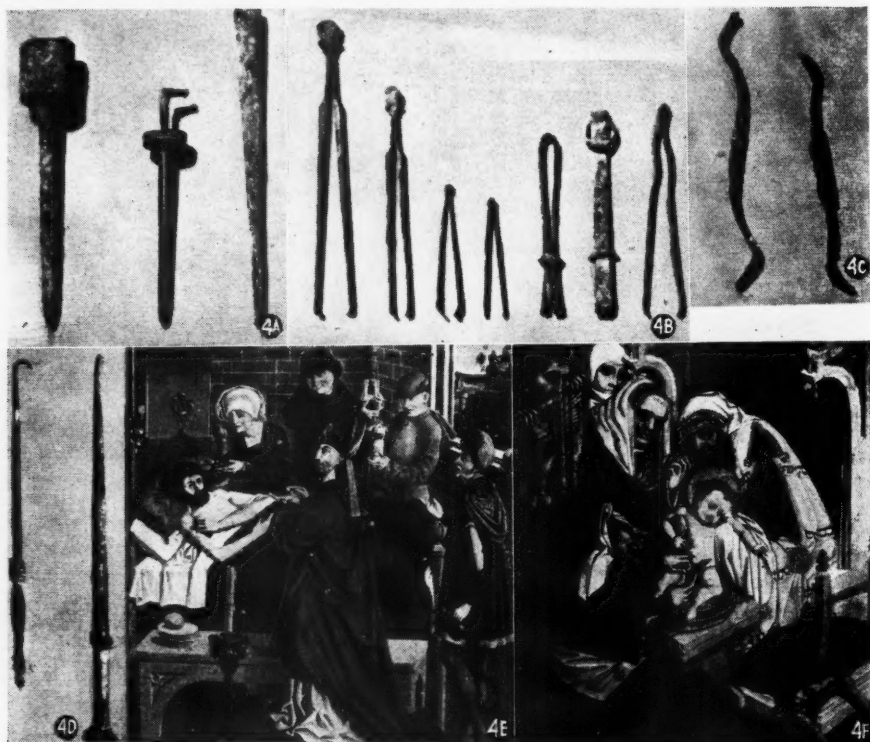


Fig. 4A. Ancient Roman irrigators and syringes.

The irrigators and syringes were used to wash out cavities. It is extremely probable that they were also employed for ordinary vaginal and rectal irrigations. From left to right: an irrigator, a syringe, and a tube which, according to some authorities, must have been used to keep dilated those parts that were not to be cicatrized.

As the Romans had no idea of asepsis and antisepsis, they believed that suppuration was useful in aiding recovery from wounds. According to Galen's teaching, pus was *bonum et laudabile*.

Fig. 4B. Various types of forceps.

It is not definitely known whether these are surgical or cosmetic (depilatory?) instruments or were used to trim the wicks of oil lamps.

Fig. 4C. Elevator for fractured bones and a scraper.

Fig. 4D. Two hooks. The hook was used for various purposes. It was employed for freeing and extracting bone splinters from open fractures or for removing foreign bodies embedded in the tissues. They were part of the simple instrumentarium used by the Roman surgeons in operations for removal of the stone. Celsus enumerates three instruments in his clear description of lithotomy (*Celsiana Sectio*): the bistoury, the hook and the spoon.

Fig. 4E. Healing the sick.

Fig. 4F. Circumcision.

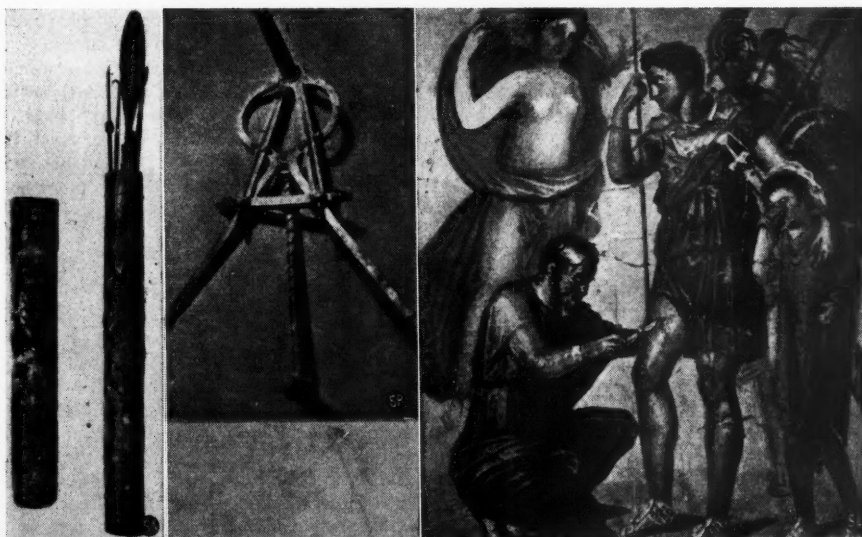


Fig. 5A. Theca vulneraria (A case for surgical implements).

Fig. 5B. A large four-valved speculum.

Fig. 5C. Pompeian mural depicting a surgical operation.

The fresco is inspired by a mythological episode in the Virgilian *Aeneid*. Aeneas, wounded in battle, is treated by Iapyx, a surgeon experienced in dealing with the wounds of warfare. Iapyx uses a pair of clamp forceps to delicately extract the spear from the wound of the hero, who leans on his small son. In the background Aphrodite arrives bearing origanum, gathered on Mount Ida, with which to make an aqueous infusion to cleanse the wound.

Fig. 5D. Blood letting in the 17th century.

Charles Philippe Ademat de Monteil, Madame de Grigman's brother, underwent severe blood letting. He tried to resist the eleventh blood letting, which became his last, but the physicians got the better of him, declaring that they did not absolutely wish to abandon him and desired to kill him according to the good rules . . .

Fig. 5E. Sellers of Theriaca.

From a letter by Madame de Sevigne.

ANCIENT ROME

Ancient Rome is rich in medical antiquities. The excavations at Herculaneum and Pompeii revealed a complete surgeon's 'house, with all his professional armamentaria intact. The remarkable thing is that some of the instruments resemble our own very much, and are in a perfect state of preservation. The anal bivalve and the magnum matricis speculum (Fig. 6) are very competent and in fine state of preservation.

The Romans were concerned with war, conquest and administration. They were not interested in the arts and the sciences, except in so far as these concerned war and conquest. Fig. 5 illustrates a mural depicting the removal of a spear from the thigh. Both surgery and art are used to illustrate a military episode.

Forceps, knives, bistouries, cupping cups, scissors and many other instruments are quite efficient and resemble our own very much (Figs. 3 and 4). Even their knowledge of anatomy was accurate, because careful dissections at the University of Cambridge, in the 1930s by Dr. Duckworth (who followed the

original text of Galen) proved that Galen's descriptions were correct and accurate.

Hooks, probes and cannulas, catheters, spatulae and syringes were used, as shown in Figs 3-6, and some of them resemble our own as used to-day. Catheters were used as early as 460 B.C. by the Greeks and Romans. Hippocrates stated that the skill of a physician could be judged by his use of the catheter regarding entry into the bladder. Bronze, copper and silver was used to make catheters.

ANCIENT INDIA, PERU AND CHINA

In Ancient India, plastic surgery of the nose and the face was quite advanced. This was necessary, because of the punishment of cutting off the nose and ears of unfaithful wives, and because of nasal injuries due to war and disease. There are also descriptions of the uses of moulds and fungi on septic wounds, as well as knowledge of diabetes or the 'Sugar disease' which was detected by actually tasting the urine.

In Ancient Peru (Figs. 6, 8) there was a medical school which imparted knowledge by

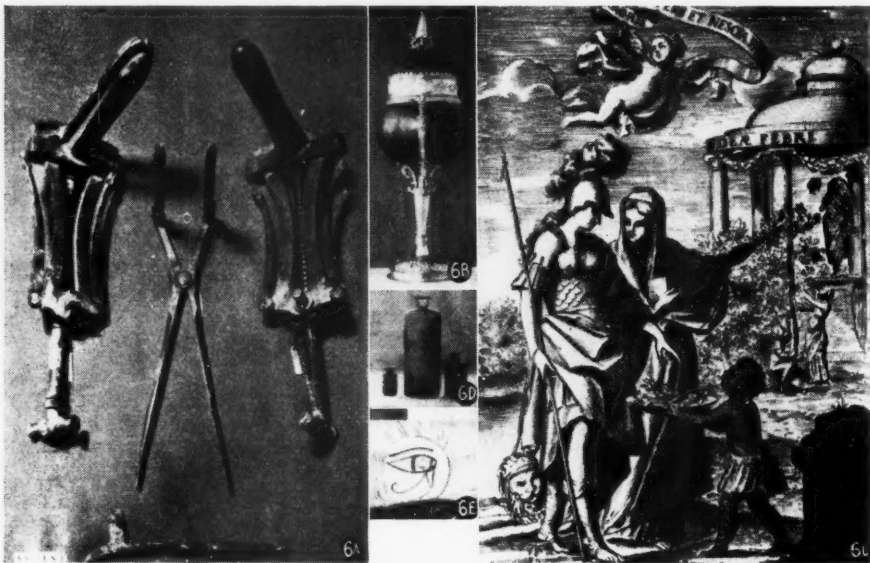


Fig. 6A. Various specula of Ancient Rome. A bi-valve anal speculum, still in working order, is shown between two perfectly preserved examples of a three-valved *speculum magnum matricis*. The three- or four-valved vaginal specula, in bronze, were used in obstetrical and gynecological operations. Below, a fragment of an obstetrical instrument.

Fig. 6B. Coconut cup and cover, silver mounted. (English, about 1610).

Fig. 6C. Peru offers a branch of cinchona to Science.

Fig. 6D. Ancient medicine bottles.

Two small apothecaries' bottles, late 17 century, and one large example, early 1700's.

Fig. 6E. Eye of Horus, the Healing Sun God.

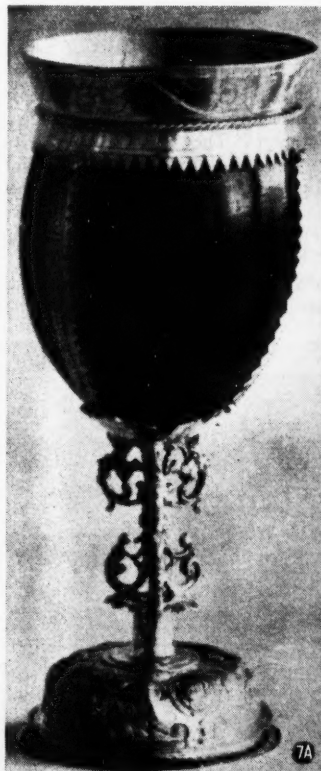


Fig. 7A. Coconut cup with silver mount, about 1580.

Fig. 7B. Wisdom holding the Caduceus in her left hand.

Fig. 7C. Drug jar for liquid medicine.

Fig. 7D. Drug jar for herbs.

Fig. 7E. An 18th century microscope with shagreen mounts in the original case.

demonstrations, on models and on live specimens, just as we ourselves do today in our medical schools.

In China, as in most ancient countries, the physician was held in great reverence and awe, and was ascribed divinity. Porcelain and pottery statues of mighty healers exist. The use of the knife was not allowed and most of the treatment was magico-empirical.

THE MIDDLE AGES

In the twilight which followed the fall of Greece and Rome, medicine stagnated until

the 11th century, when medical learning was again established on a sound basis at Salerno, which became very famous and where it is believed that women doctors were for the first time again employed as teachers, since the days of Ancient Egypt. They were probably midwives and nurses. One of them, named Trotula, is credited with having written a book on obstetrics. It is she who is alleged to be the original 'Dame Trot' of the modern fairy tale (Fig. 2).

Most medical practice throughout the Middle Ages was magico-empirical. There are many



Porcelain tray once belonging to Joseph Bonaparte, King of Spain (c. 1788, d. 1840).



Fig. 8A. A porcelain tray showing Medicine holding the Caduceus, receiving a branch of cinchona from Peru.

Fig. 8B. (left). Court Jesters. (right). The quack doctor.

cups in a fine state of preservation, made of coconut, ostrich eggs and crystal, mounted on finely worked silver (Fig. 7). The coconut cup was supposed to have medicinal properties against rheumatism and epilepsy. The crystal in the cup was supposed to cloud or crack if poison was put in the drink.

Towards the end of the Middle Ages and the early Renaissance, there were many paintings illustrating medical subjects (Fig. 4). One shows the circumcision of the Lord, which is very interesting, because the operator is using a huge curved knife and he holds the tip of the penis, as if holding a twig for trimming. An interesting point is that the man behind, holding the Sacred Scriptures, is using spectacles like our own. The date of this painting is about 1460.

The other painting (Fig. 4) is named *Healing the Sick*. Here a Bishop is attending a patient, who is obviously an important nobleman. The assistants are holding beakers, drug jars, arbarellos and flasks. In 1474 Caxton published a book on the game of chess, in which he mentioned that the Queen's pawn represented the physician-apothecary, while the King's pawn represented the merchant-banker.

THE 16TH CENTURY

In the 16th Century much use was made of Theriaca. The main ingredients of this medicinal decoction were snakes and vipers. In 1574 a great controversy raged at Bologna about Theriaca, and eventually the matter was taken to the Pope for arbitration. Such was the importance of Theriaca, that there is a woodcut published in 1521, in the *Liber de Arte Distillinde* by Jerome Brunschwig, commemorating the sellers of Theriaca (Fig. 5).

This controversy started because a new manufacturer added customary and cardamon, to which the Bolognese apothecaries objected. The question arose whether the vipers used in its preparation were the right ones, because some were pregnant and others were not; besides, they were caught at the wrong time of the year. All this is very well described in a book by A. Benedicenti, *In Malati Medicie Farmacisti*, Hoepli, Milan.

Queen Elizabeth I was often prescribed, by her physician, a hedgehog cooked in claret. Other ingredients used were toads, lizards, snakes and porcupines. It was at this time that Vesalius (Professor of Surgery at the University of Padua) was conducting demonstrations and teaching anatomy in the open (Fig.

1). His audience includes even a Cardinal of the Church, probably watching on behalf of the Inquisition.

In 1571 a book was published called *Medico-Philosophical Advice* from the *Compendio Dei Segreti Razionali*, by M. Leonardo Fioravanti. His theme was that, for a woman to be beautiful, the essential and the most important things for her to have were riches, few cares, and happiness, so that she would keep her smiling face and thus become beautiful.

THE 17TH CENTURY

The 17th Century was very interesting because of the many articles that have come down to us illustrating medical practice in those days. There are engravings of maternity stools, deliveries of patients, and the famous and ever-used operation of bleeding the patient. Fig. 5 illustrates the actual operation of bleeding a patient, and Fig. 2 illustrates a bleeding bowl. This vessel was sometimes marked with lines inside to show the amount of blood drawn. Fig. 3 illustrates a cupping vessel, a very much used article in those days.

The Great Plague of London which raged throughout the summer of 1665, has been described in many vivid contemporary accounts by such writers as Pepys and Dr. Nathaniel Hodges. Hodges was one of the few fearless physicians who remained in London, whence even the Court had fled; and in the *Leimologia*, dated 1672, he tells how, fortified with sack and sucking lozenges made from various herbs, he went his rounds of the sick in their sealed houses, the doors of which were marked with a red cross and the words *Lord, have mercy upon us*. It is to Hodges' credit that, although he did not know the true cause of the plague, which was thought to be spread by dogs, his treatment of his patients was to some extent enlightened, for he recognized the benefits of fresh air, complete rest and a light diet; though, he also tells us, he tried such cures as dried toad powder, unicorn's horn and a concoction known as 'plague water'.

It is interesting to note that these medicines were kept in jars and bottles of pottery and porcelain of Hispano-Moresque type (Fig. 7). There were also jars with concave curves in the centre, for an easy grip. These were called arbarellos, and were also made of porcelain or pottery and were beautifully decorated. Some had the name of the drug inscribed into the decoration during manufacture.

THE 18TH CENTURY

Although bleeding and cupping were practised very extensively in the 17th Century, yet there are many engravings of the 18th century showing the doctor and his assistant arriving at the patient's bedside to administer the famous 'clyster', which is an enema. Engravings usually show the physician arriving with the assistant behind him, carrying the necessary paraphernalia.

It is very interesting to see the 18th century doctor's medicine cabinet (Fig. 3). It is made of mahogany fitted with beautiful crystal bottles glasses, etc. Fig. 6 shows an engraving of the same period, where Peru, represented as an indigenous boy, is presenting cinchona to Science, who is Minerva. The Temple is inscribed *Deae Febri*, meaning that it is dedicated to the Goddess of Fever.

There is a magnificent porcelain plate of great beauty, which used to belong to King Joseph Bonaparte of Spain. Fig. 8 shows this plate. An angel is presenting a branch to a laurel-wreathed woman, who is holding the Caduceus, presumably meant to symbolize the angelic and the heavenly gift of the cinchona plant from Spanish Peru to Medicine. Below this illustration of the porcelain plate, there is a photograph of a Meissen porcelain figurine group called *The Quack Doctor*, which is a piece of great beauty and illustrates the practice of those times.

There is also an illustration of apothecaries' bottles, which is very interesting. These bottles

were used by 'druggists, apothecaries and chyrurgions' for dispensing their medicines. Some bottles date back to 1400 A.D. In 1752 Benjamin Franklin described a flexible catheter in a letter to his brother, and at about the same time the Surgeon-General to Frederick the Great introduced an elastic cathether covered with India rubber.

Fig. 7 depicts an 18th century microscope, and another of an enamel plaque, where Wisdom is shown holding the Caduceus in her right hand (as held by Asklepios in Fig. 2 of the Health Centre in Ancient Greece). In the 16th and the 17th centuries, physicians carried a pocket one-minute sand glass in a leather case for timing the pulse.

SUMMARY AND CONCLUSIONS

A study of the antiquities enables one to have a glimpse and to recapture fragments of vanished worlds.

This review illustrates medical antiquities, fragments of disease and treatment in medicine, surgery and gynaecology in vanished worlds throughout the ages.

OPSOMMING

'n Studie van oudhede gee ons 'n insig in die wêreld wat lank reeds van die toneel verdwyn het, en stel ons in staat om fragmente van daardie wêreld weer voor die geestesoog op te tower.

In hierdie oorsig bespreek die skrywer mediese oudhede, fragmente van siektes en geneeskundige behandeling, chirurgie en ginekologie in wêreld wat saam met die eeue verdwyn het.

LICHEN PILARIS SEU SPINULOSUS

WITH OCULAR MANIFESTATIONS

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Lichen pilaris seu spinulosus, is an affection occurring mainly in children, particularly boys. The first case was described by Crocker in 1883. An extensive review of the subject was made by Adamson¹ and in 1921 Graham Little² discussed the baldness often associated with

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the condition. Adamson stated that the disease is characterized by the appearance of fine filiform spines, arranged in groups, more or less symmetrically over the trunk and the limbs. The filiform spines arise from pilo-sebaceous follicles, the mouths of which are slightly raised to form pinhead size papules. There is some hyperaemia at first, but this gradually subsides and the lesions become grayish or yellowish in colour. They are not accompanied

by itching or other subjective sensations and there is little or no disturbance of the general health. Histologically, the pathological process is essentially a hyperkeratosis of the follicle. Perifollicular inflammation is absent or slight.

Eye changes associated with this condition have been reported by Siemens.³ He observed 2 families with the disease. The Utrecht family showed what he described as corneal degeneration. In the Munich family there was partial to total loss of eyelashes and eyebrows, blepharitis and an inflammatory condition of the cornea with opacities and pannus. The full picture of the disease with lesions of the skin, hair and eyes was seen in the males. The affected females showed changes in the skin only. Siemens' investigations of the Munich family suggested that the pathological condition had appeared within the last few generations.

According to this author, the Utrecht family showed a recessive sex-linked inheritance, while in the Munich family it was dominant and sex-linked. Falls⁴ states that the gene is sex-linked and is neither truly dominant nor recessive and affects intermediate phenotypes in heterozygous females.

CASE REPORT

A girl aged 5 with persistent photophobia, of 1 year's duration, was seen in June 1953. Ocular examination was difficult because of blepharospasm. A single, elevated bleb or vesicle about 1 mm. in diameter was present in the superficial part of the left cornea, not far from the centre. The rest of the cornea appeared healthy. No endothelial lesion was found. The ocular tension was not elevated and the ocular adnexa, media and fundi were otherwise normal. The refraction showed a myopia of 6 dioptres. Topical chloramphenicol and atropine were prescribed. The left eye gradually settled down and the elevated corneal bleb disappeared, leaving behind a superficial annular opacity.

In July 1955 the patient developed a series of pale papules or spicules on the lid margins. These lesions in no way resembled the common forms of blepharitis seen in ophthalmic practice.

Examination of her skin showed a fine follicular hyperkeratosis, affecting the external surfaces of the arms and legs, the forehead and the temples (Fig. 1). The cheeks were unusually red. Over the vertex, the scalp showed

numerous small, irregular, depressed, bald areas, devoid of hair follicles (Fig. 2). The mucosae were normal.



Fig. 1. Follicular hyperkeratosis of the external surface of the arm.

The child's mother stated that the rash had begun at the age of 2 months after an attack of measles and bronchitis. The original lesions were on the shoulders and the rash had then spread slowly to involve the legs, arms and face. The parents, 2 brothers and a sister were well.

Biopsy from the arms showed hyperkeratosis and distension of the hair follicles by horny plugs. The granular layer was present and somewhat thickened and occasional sweat glands had undergone keratinizing metaplasia. Biopsy from the scalp showed only a relative paucity of hair follicles.

Treatment with Lanolin, Ung. Acid Benz. Co., Meticorten, ultra-violet light and 50,000 units of vitamin A (Arovit) daily for several weeks produced no real improvement.



Fig. 2. A typical bald area of the scalp.



Fig. 3. Irregular sparse eyelashes and keratotic spicules at the lid margins.

When the patient was examined in December 1957, the skin of the eyebrows appeared erythematous, keratotic spicules were present at the lid margins and many of the eyelashes had fallen out. The remaining eyelashes were irregular in size and direction (Fig. 3). The lower halves of both corneas showed minute epithelial erosions. The round opacity previously noted at the site of the corneal bleb was still present. There was a small zone of superficial vascularization of the left cornea at 7 o'clock.

DISCUSSION

The first ocular lesion which was observed in the patient described, was a superficial vesicle of the cornea. It was thought to be a primary manifestation of the ectodermal disorder. It preceded and was not caused by the follicular changes in the lid margins. Siemens mentions corneal 'degeneration' as occurring in lichen pilaris, but unfortunately gives no details of the degenerative changes.

The epithelial erosions noted in the present case were considered to be inflammatory in origin.

An unusual feature of this case was the fairly severe involvement of the hair-bearing area and the eyes in a female.

The patient's parents, her sister and 2 brothers were free of the disease. The disease in her case would appear to be due to a mutant gene. Siemens' observations indicate that the disease may appear spontaneously in a previously healthy family and that it is then inherited on a sex-linked basis.

SUMMARY

The authors describe a case of lichen pilaris seu spinulosus in a young girl whose parents and siblings are free of the disease. Ocular abnormalities, thought to be manifestations of the disease, are reported.

OPSOMMING

Die skrywers beskryf 'n geval van lichen pilaris, seu spinulosus by 'n jong meisie wie se ouers en broers en susters vry van die siekte was.

Oogabnormaliteite wat, na gemeen word, manifestasies van die siekte is, word beskryf.

We thank Dr. F. Mynhardt who referred the patient, Dr. A. Jokl for his advice and help and the Superintendent of the Far East Rand Hospital for permission to submit this case for publication.

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NOTES AND NEWS : BERIGTE

Dr. Bertram A. Bradlow, accompanied by his wife, recently left for a 3-month visit overseas. Dr. Bradlow will do post-graduate work in England and in Switzerland. They will be back in Johannesburg at the end of June.



Mr. A. Radford, M.P.

Mr. Aubrey Radford, F.R.C.S., has been returned unopposed as a Member of Parliament for the Durban Central seat.

Mr. Radford is well known to the medical profession in South Africa as a prominent member of the South African Medical and Dental Council.

Mr. S. Joel Cohen of Johannesburg has been invited by Prof. A. Brunschwig to do operative work at the Memorial Hospital for Cancer, New York.

Mr. Cohen will also read a paper at the Second World Congress of the International Federation of Obstetrics and Gynaecology, to be held at Montreal in June 1958.

Mr. Cohen will leave South Africa at the beginning of May and will return at the end of June.

THE INTERNATIONAL UNION AGAINST CANCER AND THE NATIONAL CANCER ASSOCIATION OF SOUTH AFRICA

The International Union Against Cancer is holding a meeting of its General Assembly in London on 6 July 1958.

The National Cancer Association of South Africa will be represented at this meeting by 3 official delegates, viz. Dr. Lewis S. Robertson, President of the National Cancer Association of South Africa (representing *Control and Prevention*), Prof. E. H. Cluver, Vice-President of the National Cancer Association of South Africa (representing *Research*) and

Dr. M. Weinbren, a member of the Executive Committee of the Council of Management of the National Cancer Association of South Africa (representing *Therapy and Research*).

Dr. Weinbren, in his capacity as one of the official delegates to the meeting of the International Union Against Cancer, will also attend the Seventh International Cancer Congress, which will be held in London immediately after the meeting of the General Assembly.

THIRD WORLD CONGRESS ON FERTILITY AND STERILITY

AMSTERDAM, 7 TO 13 JUNE 1959

This Congress, sponsored by the International Fertility Association, will be held in Amsterdam, Holland, from 7 to 13 June, 1959.

The general outlines of the sections of the programme will be as follows:

1. *Female Sterility (Physiology of Reproduction; Pathology; Endocrinology; Clinical Problems; Treatment).*
2. *Male Sterility (Physiology of Reproduction; Pathology; Endocrinology; Clinical Problems; Treatment).*
3. *Basic Research.*
4. *Psycho-Sexual Problems.*

Although any original report on some phase of fertility and infertility, either clinical or in the field of the basic sciences, will be considered, definite priority will be given to those papers concerning the following subjects:

1. *Embryonic Death. (Etiology; Pathogenesis; Placental Structures in Relation to the Condition of the Foetus; Functional Problems; Diagnosis of Embryonic and Foetal Death; and Habitual Abortion).*
2. *Hormonal Factors and Vitamins in Fertility and Sterility. (Ovulation and Sterility; Induction of Ovulation; Influence of Thyroid, Steroids, etc. on Ovulation; Influence and Physio-pathological Significance of Vitamins and Hormones and Spermatogenesis).*
3. *Relative Value of the Techniques for Study of the Endocrine Functions in Human Sterility. (Oestrogen Function; Luteal Function; Adeno-Hypophysis; Testicular Biopsy; Study In Vitro of the Fertilization of Mammalian and Human Ova; Use of Radioisotopes in the Study of the Sexual Function).*
4. *Biochemistry of Spermatogenesis.*

5. *Psycho-Sexual Problems in Sterility.*

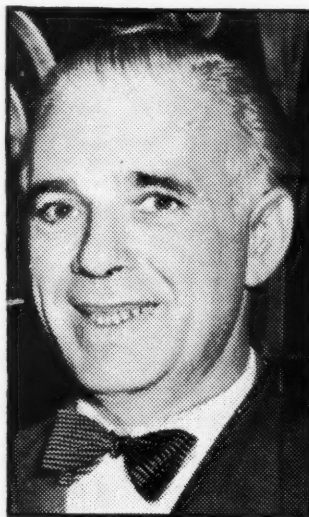
Official Languages: English, French, German, Spanish (with simultaneous translation).

Registration Fee: Full Member U.S. \$40. Accompanying family members: U.S. \$15. After 1 January, 1959, the registration fee for full members will be U.S. \$50.

Titles for papers should be sent not later than June 1958, to both Dr. Alfonso Alvarez-Bravo, Avenida Horacio 1506, Mexico City 5, D.F., Mexico, *Chairman*, and Prof. Dr. B. S. ten Berge, Academisch Ziekenhuis, Groningen, Holland, *Executive Member of the Programme Committee*.

For further information and registration apply to Dr. L. I. Swaab, *Honorary Secretary*, Third World Congress on Fertility and Sterility, Sint Agnietenstraat 4, Amsterdam.

IN MEMORIAM: MR. KURT COLSEN



Mr. K. Colsen

[Photograph: *The Star*]

associated in connection with forensic work.

We deeply regret to record the death of Mr. Kurt Colsen, a surgeon well known throughout South Africa. Mr. Colsen recently returned from a visit overseas, having been invited to lecture at the University of Rome and the University of Innsbruck.

His loss will be felt very widely, not only by his colleagues but also by legal practitioners with whom he was extensively

PREPARATIONS AND APPLIANCES

DISTAQUAINE V ELIXIR FORTE

During 1956 the *Distaquaine V* preparations of phenoxymethylpenicillin, penicillin V, were successfully introduced into the Union by British Drug Houses. It has since been accepted as a result of laboratory evidence and clinical experience that this oral penicillin, unlike the previously available preparations, is acid-stable and therefore not affected by gastric acidity. Thus a more dependable absorption and greater potency dose for dose than with other oral penicillin preparations has consistently been achieved.

It is established that to obtain the best therapeutic results with penicillin a bactericidal concentration of the antibiotic must be maintained in the body fluids. Research work now abundantly confirms that the

very high blood levels of penicillin necessary for the treatment of such conditions as subacute bacterial endocarditis, can be readily obtained with massive doses of phenoxymethylpenicillin (*Distaquaine V*). In addition the blood levels are in a linear relation to the dosage employed. These large doses of *Distaquaine V* may now be prescribed through *Distaquaine V* Elixir Forte, a preparation especially suitable for children and containing 240 mg. phenoxymethylpenicillin to the teaspoon (3.5 ml.). The *Distaquaine V* range will now consist of the following:

Distaquaine V Elixir Forte: Containing 240 mg. in 3.5 ml. 12 doses.

Distaquaine V Elixir: 2 fl. oz.

Distaquaine V Tablets: 60 mg.

*Carton of 12; Bottle of 30; Bottle of 200.

Distaquaine V Tablets: 120 mg.

*Carton of 12; Bottle of 100.

Distaquaine V Tablets: 240 mg.

*Carton of 12; Bottle of 100.

Distaquaine V Sulpha Tablets.

*Carton of 12; Bottle of 30; Bottle of 200.

*Each tablet enclosed in gold aluminium foil.

LIBRATAR

A COMPLETELY NEW APPROACH TO ULCER THERAPY

Many drugs are claimed to be effective against peptic ulceration, but conventional symptomatic treatment has seldom been entirely satisfactory.

Experimental results with *Libratar*, a chemically new drug — chlorbenzoxymethamine (a product of Union Chimique Belge) seems to indicate that this drug influences the healing process through the higher centres. Its effects upon the ulcerative disease are without material anticholinergic effect.

It has obvious advantages — effective without inhibiting gastric secretion, potent without untoward side effects, non-toxic and well tolerated.

Clinically it has been shown to be effective, not only in gastric and duodenal ulceration, but also in oesophageal ulcers. Pain usually disappears within 3 to 5 days

and some cases have shown complete radiological healing between the 3rd and 5th week.

The usual dose during acute attacks is one tablet after each meal and 2 before retiring.

Libratar is available as 30 mg. tablets in bottles of 30 and 100.

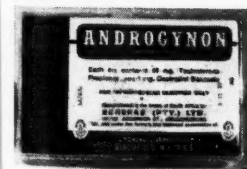
Distributors: Scherag (Pty.) Limited, P.O. Box 7539, Johannesburg.

ANDROGYNON

A COMBINATION OF ANDROGENIC AND OESTROGENIC STEROIDS

Androgynon injection is a new Schering Corporation U.S.A. preparation combining androgenic and oestrogenic steroids in a ratio suitable for the treatment of male patients biologically over 50 years old. The addition of a small amount of oestrogen to testosterone conforms to biological principles and a more complete replacement therapy is achieved.

Androgynon injection can also be successfully used in the pre-menopausal syndromes where usually a condition of a relative hyper-oestrinism is present. The proportion of 20 mg. of testosterone propionate to 1 mg. of oestradiol benzoate is sufficient to produce a marked obliteration of the endometrium and prevention of endometrial bleeding.



Androgynon is also indicated in cachectic conditions in geriatrics and for the suppression of lactation.

Androgynon injection is available as a 10 c.c. multiple dose vial and as a box of 3 ampoules. Each c.c. contains 1 mg. oestradiol benzoate U.S.P. and 20 mg. testosterone propionate U.S.P.

South African Distributors: Scherag (Pty.) Limited, P.O. Box 7539, Johannesburg.

TRYPURE

STABILIZED CRYSTALLINE TRYPSIN

Evans Medical Supplies announce the introduction of 2 improved forms of *Trypure*.

Trypure Stabilized is pure crystalline trypsin stabilized by the addition of an inert calcium salt. It is supplied in vials of 50 mg. with 15 ml. of sterile saline solution as a diluent. Solutions of *Trypure Stabilized* will keep for 48 hours at normal temperatures or for 3 months in a refrigerator.

Trypure Dispersible contains 50 mg. of *Trypure Stabilized* in 2 g. of an inert water-soluble powder. It is supplied in glass vials with a sprinkler top; 2 g. of powder is sufficient for 100–200 sq. cm. of wound surface.



Trypure is a quick-acting and dependable aid to therapy in all kinds of purulent and necrotic processes. It loosens or resolves the necrotic tissue in wounds and cavities; it liquefies purulent, viscid accumulations and clotted blood; it reduces

the viscosity of ropy bronchial secretions. By removing dead tissue it facilitates and accelerates normal wound healing; it does not attack healthy tissue which is protected by trypsin inhibitors.

The new stable forms of *Trypure* permit less frequent applications than is possible with non-stabilized trypsin. In most cases one application per day is sufficient.

Trypure possesses a much higher proteolytic activity than other enzyme preparations. Its purity obviates the risk of allergic or toxic side effects and no antigenic or sensitization reactions have been reported.

More detailed information is available from: Evans Medical Supplies, P.O. Box 6607, Johannesburg.

ERGODRYL

A NEW PREPARATION FOR MIGRAINE

Parke, Davis Laboratories (Pty.) Ltd., have introduced *Ergodryl*, a new oral preparation for the treatment of migraine.

Description: *Ergodryl* is a non-narcotic agent for the treatment of migraine and vascular headaches, each capsule containing the following classical combination:

Ergotamine Tartrate 1 mg.

Caffeine Citrate 100 mg.

Diphenhydramine HCl (Benadryl) 25 mg.

Ergotamine Tartrate exerts a vasotonic action, especially marked on the extracranial arteries. In migraine, the intensity of the headache increases parallel to the increase in the amplitude of pulsations in the dilated extracranial vessels. Ergotamine, by its vasotonic effect reduces the amplitude of these pulsations and so the intensity of the headache is decreased.

Caffeine Citrate stimulates the central nervous system and potentiates the action of ergotamine. Therapeutic doses of caffeine have 2 vascular effects:

(a) Peripheral vasodilation (direct action on vascular wall);

(b) Central vasoconstriction (stimulation of the vasomotor centres).

Benadryl, because of its antispasmodic and antihistamine effect, has proved valuable in the many cases of migrainous attacks which are considered due to a mechanism similar to histamine-induced vasodilation of the branches of the external carotid.

Indications: The principal indications are genuine migraine, migraine in children and histaminic cephalalgia.

Dosage and Administration: *Ergodryl* should be taken as early as possible in the prodromal phase. With the first attack treated with *Ergodryl* one capsule should be given as early as possible. If the headache is not aborted, one further capsule may be given every 30 minutes up to a total of 6 capsules. Once the dosage necessary to abort the attack has been determined, the patient can take the total number of capsules as a single dose on the first warning of an attack. However, no more than 4 capsules should be taken as a single dose.

The patient should be advised not to take more than 10 capsules in any one week. Optimal results depend on dosage adjustment. The great advantages of oral *Ergodryl* therapy are that the patient can take the dose as soon as he feels an attack is imminent and that the dosage can be adjusted to the intensity of the attack.

Contra-Indications: Peripheral vascular disease, angina pectoris, impaired hepatic or renal function and pregnancy.

Ergodryl Capsules are available in vials containing 10 capsules and in bottles of 100 capsules.

PREPARATE EN TOESTELLE

DISTAQUAINE V ELIXIR FORTE

Gedurende 1956 het British Drug Houses die *Distaquaine V*-preparate van fenoksimeetipenisillien, penisillien V, met welslae in Suid-Afrika beskikbaar gestel. Ten gevolge van laboratoriumbewyse en kliniese ondervinding is daar sedertdien allerwee aanvaar dat hierdie mondelinge penisillien, anders as die preparate wat vroeër beskikbaar was, suurstabiel is, en gevolglik nie deur maagsurigheid geaffekteer word nie. Gevolglik was dit moontlik om betroubaarder absorpsie en groter kragtigheid, dosis vir dosis, as met enige ander mondelinge penisillienpreparaat te bewerkstellig.

Daar is vasgestel dat om die beste terapeutiese resultate met penisillien te verkry, dit nodig is om 'n bakterievernietigende konsentrasie van die antibiotikum in die liggaamsvloeistowwe in stand te hou. Navorsingswerk het nou oor en oor bewys dat die baie hoë penisillienbloedpeile wat nodig is vir die behandeling van sulke toestande soos subakute bakteriese hartvliesontsteking maklik verkry kan word met massiewe dosisse fenoksimeetipenisillien (*Distaquaine V*). Daarbenewens staan die bloedpeile in lineêre verhouding tot die dosis wat gebruik word. Hierdie groot dosisse *Distaquaine V* kan nou voorgeskryf word deur gebruik te maak van *Distaquaine V* Elixir Forte, 'n preparaat wat spesiaal geskik vir kinders is, en 240 mg. fenoksimeetipenisillien per teelepvol (3.5 ml.) bevat. Die *Distaquaine V*-reeks bestaan tans uit die volgende:

Distaquaine V Elixir Forte: Bevattende 240 mg. in 3.5 ml. 12 dosisse.

Distaquaine V Elixir, 2 vl.-ons.

Distaquaine V-tablette, 60 mg.

*Kartondosies van 12; bottels van 30; bottels van 200.

Distaquaine V-tablette, 120 mg.

*Kartondosies van 12; bottels van 100.

Distaquaine V-tablette, 240 mg.

*Kartondosies van 12; bottels van 100.

Distaquaine V-sulfatablette.

*Kartondosies van 12; bottels van 30; bottels van 200.

*Iedere tablet is in goudaluminiumblad toegedraai.

LIBRATAR

'N HEELTEMAL NUWE BENADERING TOT SWEERTERAPIE

Aanspraak word daarop gemaak dat talle middels doeltreffend is vir die behandeling van peptiese swere, maar die konvensionele simptomatiese behandeling is selde heeltemal bevredigend.



Die proefondervindlike resultate wat behaal is met *Libratar*, 'n nuwe chemiese middel — chloorbensoksietamien ('n produk van Union Chimique Belge) skyn daarop te dui dat hierdie middel die genesingsproses deur die hoër sentrums beïnvloed. Die effek daarvan op die verswerende siekte gaan nie gepaard met enige materiële anticholinergiese effek nie. Dit het voor die hand liggende voordele—dit is doeltreffend, maar dit strem nie die maagafskeidings nie; dit is kragtig, maar dit het geen ongunstige newe-effekte nie; en dit is nie-toksies en word goed verdra.

Klinies is daar aangetoon dat dit doeltreffend is vir die behandeling nie alleen van maag- en duodenale swere nie, maar ook van slukdermswere. Die pyn verdwyn gewoonlik binne 3 tot 5 dae, en in sommige gevalle word algehele radiologiese genesing tussen die 3de en die 5de week bewerkstellig.

Die gewone dosis tydens akute aanvalle is een tablet na iedere maaltyd, en 2 met slapenstyd.

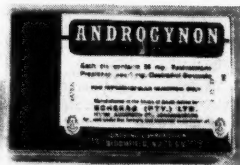
Libratar is verkrygbaar in die vorm van tablette van 30 mg. en in bottels van 30 en 100.

Verspreiders: Scherag (Pty.) Limited, Posbus 7539, Johannesburg.

ANDROGYNON

'N SAMESTELLING VAN ANDROGEEN- EN ESTROGEEN-STEROÏDE

Androgynon-inspuiting is 'n nuwe preparaat van die Schering Corporation, Verenigde State van Amerika. Dit is 'n samestelling van androgeen- en estrogeen-steroïde in 'n verhouding wat geskik is vir die behandeling van manlike pasiënte wat biologies ouer as 50 jaar is. Die byvoeging van 'n klein hoeveelheid estrogeen by die testosteroon voldoen aan biologiese beginsels, en volledige vervangingsterapie word bewerkstellig.



Androgynon-inspuiting kan ook met welslae gebruik word vir die behandeling van die menopausiesindrome waar 'n toestand van betreklike hiper-estrinisme gewoonlik aanwesig is. Die verhouding

van 20 mg. testosteroonpropionaat tot 1 mg. estradiolbensoaat is voldoende om 'n opvallende obliterasie van die endometrium te bewerkstellig en om endometrium-bleeding te voorkom.

Androgynon word ook aangedui vir die behandeling van kageksie-toestande in geriatric, en vir die onderdrukking van melkafskieding.

Androgynon-inspuiting is verkrygbaar in 'n veelvuldige-dosis-flesie van 10 k.s., in dosies van 3 ampulle. Iedere k.s. bevat 1 mg. estradiolbensoaat U.S.P. en 20 mg. testosteroonpropionaat, U.S.P.

Verspreiders in Suid-Afrika: Scherag (Pty.) Limited, Posbus 7539, Johannesburg.

TRYPURE

GESTABILISEERDE KRISTALLYNE TRIPSIE

Evans Medical Supplies kondig die beskikbaarstelling aan van 2 verbeterde vorms van *Trypure*.

Gestabiliseerde *Trypure* is suiwer kristallyne tripsien, gestabiliseer deur die byvoeging van 'n leweloze kalsiumsout. Dit word verskaf in flessies van 50 mg., met 15 ml. steriële soutoplossing as verdunningsmiddel. Oplossings van Gestabiliseerde *Trypure* kan 48 uur lank teen normale temperatuur en 3 maande lank in 'n yskas bewaar word.

Dispergeerbare *Trypure* bevat 50 mg. Gestabiliseerde *Trypure* in 2 g. van 'n leweloze, in water oplosbare poeier. Dit word beskikbaar gestel in glasflessies met 'n sprinkelprop; 2 g. van die poeier is voldoende vir 100-200 vierkante sentimeter wondoppervlakte.



Trypure het 'n vinnige effek en is 'n betroubare terapeutiese hulpmiddel by die behandeling van etterende en verrottende prosesse. Dit maak die nekrotiese weefsels in wonde en holtes los of breek hulle heeltemal op; dit maak etterende, klewerige akkumu-

lasies en gestolde bloed vloeibaar; dit verminder die klewerigheid van draderige brongiale afskeidings. Deur die verwydering van dooie weefsels bevorder en bespoedig dit normale wondgenesing; dit val nie gesonde weefsel aan nie, want laasgenoemde word deur tripsienstremmers beskerm.

Die nuwe stabiele vorms van *Trypure* kan minder dikwels aangewend word as nie-gestabiliseerde tripsien. In die meeste gevalle is een aanwending per dag voldoende.

Trypure het 'n veel hoër proteolitiese bedrywigheid as enige ander ensiempreparaat. Die suiwereheid daarvan voorkom enige gevaar van allergiese of toksiese newe-effekte, en geen teengeen- of sensitisasie-reaksies is gerapporteer nie.

Breedvoerder inligting is verkrygbaar van: Evans Medical Supplies, Posbus 6607, Johannesburg.

ERGODRYL

'N NUWE PREPARAAT VIR MIGRAINE

Parke, Davis Laboratories (Pty.) Ltd. kondig die beskikbaarstelling aan van *Ergodryl*, 'n nuwe mondelinge preparaat vir die behandeling van migraine.

Beskrywing: *Ergodryl* is 'n nie-narkotiese middel vir die behandeling van migraine en vasculêre hoofpyn. Iedere kapsule bevat die volgende klassieke samestelling:

Ergotamiantartraat 1 mg.

Kaffeïensitraat 100 mg.

Difenhidramien-HCl (Benadryl) 25 mg.

Ergotamiantartraat het 'n vasotoniese effek, veral op die buitekopskedelslagare. In gevalle van migraine neem die hewigheid van die hoofpyn toe in regstreekse verhouding tot die omvang van die klappings in die verwyde buitekopskedelvatte. Omdat ergotamine 'n vasotoniese effek het, verminder dit die omvang van hierdie klappings, en gevolglik verminder dit ook die hewigheid van die hoofpyn.

Kaffeïensitraat stimuleer die sentrale senuweestelsel, en verskerp die effek van die ergotamien. Terapeutiese dosisse kaffeïen het 2 vasculêre effekte: (a) Randstandige vaatverwyding (regstreekse inwerking op die vaatwand); (b) sentrale vaatvernouing (stimulasie van die vasomotoriese sentrums).

Benadryl het 'n krampbestrydings- en anti-histamienefek, en het reeds die bewys geleverd dat dit van waarde is in baie gevalle van migraine-hoofpyn wat, na gemeen word, te wyte is aan 'n meganisme soortgelyk aan histamienopgewekte vaatverwyding van die takke van die uitwendige nekslagare.

Indikasies: Die vernaamste indikasies is egte migraine, migraine by kinders en histamien-sefalalgia.

Dosis en Toediening: *Ergodryl* moet so vroeg moontlik tydens die aanmanende fase geneem word. Tydens die eerste aanval wat met *Ergodryl* behandel word, moet die pasiënt so gou as moontlik een kapsule neem. As die hoofpyn nie gestuit word nie, kan een verdere kapsule al om die 30 minute gegee word totdat altesaam 6 kapsules geneem is. As die dosis wat nodig is om die aanval te stuit, eenmaal vasgestel is, kan die pasiënt die totale aantal kapsules as enkele dosis by die eerste waarskuwing van 'n aanval neem. 'n Enkele dosis moet egter nooit uit meer as 4 kapsules bestaan nie.

Die pasiënt moet aangemaan word om nie meer as 10 kapsules gedurende 'n enkele week te neem nie. Optimum-resultate hang af van die aanpassing van die dosis. Dit groot voordeel van mondelinge *Ergo-*

dryl-terapie is dat die pasiënt die dosis kan neem die dosis. Die groot voordeel van mondelinge Ergo-sodra hy voel dat 'n aanval aan die kom is, en dat die dosis by die hewigheid van die aanval aangepas kan word.

Kontra-indikasies: Randstandige vaatkwale, angina pectoris, versteurde lewer- of nierfunksie en swangerskap.

Ergodryl-kapsules is verkrygbaar in flessies bevat-tende 10 kapsules en bottels met 100 kapsules.

CORRESPONDENCE

ALCOHOLISM

To the Editor: The *Symposium on Alcoholism* (Medical Proceedings, 9 November 1957) opens with one of the finest parodies of logic that I have read in medical literature:

'In considering the problem of alcoholism, *cognizance must be taken of the fact that two distinct processes are involved*. In few diseases is the *futility of postulating a dichotomy* between physiological and psychological behaviour so *obvious* as in alcoholism'. The ensuing sentence affirms that 'physiological behaviour' and 'psychological behaviour' are, indeed, the *two distinct processes* to which the opening sentence refers; that these processes are joined so manifestly by the relationship of 'complete interdependence' that 'all argument as to which is paramount is patently irrational'. Might not this *Introduction* be re-written thus?

'It is tacitly assumed that alcoholism is a nosological entity possessed of some unusual features; it must be accepted as a fact that two distinct processes are involved, though it is self-evident that any attempt to distinguish these distinct processes is both futile and hypothetical; moreover, these two real and hypothetical processes are connected by the relationship of 'complete interdependence' which we assert (without proof thereof) is mutually exclusive with the relationship of 'greater significance than' such that these two relations cannot co-exist between two identical variables. Another peculiarity of the disease is that normal, i.e. physiological, behaviour is one of the two principal components of a pathological process possessed of components that defy analysis but, if analysed, the end result is mere futile imagination.'

The *Introduction* to the article in question is nonsense, phrased with an arrogance that would counterfeit authority. Is it in the manner of the language of Psychiatry? Is it not the taint of ludicrous arrogance that qualifies the psychiatric consulting room for the privilege of frequent representations within that sort of Journal typified by *Punch*? To each question, as I in ambivalent fashion do suppose, the answer is more of 'yes' than 'no'.

Two more instances of logical error deserve brief comment since clinical conclusions that are at least dubious are deduced from these erroneous or unsubstantiated premises.

Each contributor to the *Symposium* assumes, without one scrap of evidence for the hypothesis, that alcoholism is necessarily a sign of psychopathology. Within the latter unfounded assumption there lies a necessary and further premise which invariably is left unstated: it is that the phrase 'life's problems' designates a constant factor in some ill-defined psychiatric equation wherein humanity is but an indeterminate variable—an 'X' of unknown age and sex. Let 'X' be aberrant or deficient, then alcoholism is among the few sordid solutions satisfying the psychiatrist's equation (though all are but sad answers to the human problem for that is not even within the power of mathematics to describe). No assertion, however

glib, or cunning in disguise, persuades me against all the evidence of Social History that tells of the fickle character of 'circumstance' and records the variance of its effect in the face of human frailty as well as human courage; so also does 'circumstance' vary at all times in the lives of the single, diverse persons that are the patients of medical practice. What exposition upon psychopathology possesses the eloquence of the Prince of Denmark's telling of 'The heart-ache and the thousand natural shocks that flesh is heir to'? Human frailty of some degree is as natural and as old as Man himself—to anyone who sees it as an indication for psychotherapy, all of humanity is ailing and gone are all the standards of normality. Accordingly, it is my experience that most 'alcoholics' are both talented and sensitive folk who have resisted with unusual fortitude gross aberrations of 'circumstance'; they respond to medical therapy, particularly when they see that pathology ('blame' is not a medical term) lies in 'outrageous fortune' which, being inanimate, feels not hurt pride whatever the mental illness imputed to it; their conversation is interesting and intelligent; they do not like psychiatry or its practitioners.

The second error is, quite simply, that epilepsy is not often an obvious symptom revealed by convulsions but occurs rather (as a symptom of localized and non-progressive cerebral damage, that is otherwise clinically 'silent') in the form of transient disturbance of sensation, mood or thought. It is among the commonest of neurological symptoms, yet it is often unrecognized. Patients frequently do not speak of it unless asked because it is inexplicable to them and often frightening; alcohol is a powerful 'trigger' for symptomatic seizures, so naturally patients are led to believe that alcohol is draining their sanity; in short, the combination of unrecognized epilepsy with moderate social drinking can lead frequently to fear and domestic upsets, attendant upon akinetic seizures, that sap the morale of the strongest characters. Epilepsy is a cause of alcoholism, not an effect. In a small series of 11 patients, 8 have been able to halt the process of losing, or retrieve, their social and economic status with ambulant treatment consisting of full anticonvulsant therapy, low doses of a powerful 'tranquilizer' Largactil (recently replaced by Trilafon) and moderate amounts of a barbiturate-amphetamine mixture; therapeutic success has been maintained for periods of between 8 and 16 months to date. Patients are told that habituation to the Trilafon-barbiturate mixture may occur, but the combination does not lead to an excessive craving for either component and even if they have to remain on the medication for their lifetime it does not, in contrast to alcohol, prevent them from leading an active and useful life—a comparison is drawn with diabetes and permanent insulin therapy.

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